

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 September 2005 (22.09.2005)

PCT

(10) International Publication Number
WO 2005/087821 A3

(51) International Patent Classification⁷:
255/10, 8/46, 210/12, C10M 149/02

C08F 8/32,

(74) Agent: SHOLD, DAVID M.; LAFERTY, SAMUEL B.;
GILBERT, TERE, Michael E.; The Lubrizol Corporation,
29400 Lakeland Boulevard, Wickliffe, OH 44092 (US).

(21) International Application Number:
PCT/US2005/007544

(22) International Filing Date: 8 March 2005 (08.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/551,838 10 March 2004 (10.03.2004) US
60/569,557 10 May 2004 (10.05.2004) US

(71) Applicant (for all designated States except US): THE LUBRIZOL CORPORATION [US/US]; 29400 Lakeland Boulevard, Wickliffe, OH 44092 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KOLP, Christopher [US/US]; 29400 Lakeland Boulevard, Wickliffe, OH 44092 (US). GIESELMAN, Matt D. [US/US]; 29400 Lakeland Boulevard, Wickliffe, OH 44092 (US). EVELAND, Renee A. [US/US]; 29400 Lakeland Boulevard, Wickliffe, OH 44092 (US). PIKE, Philip [US/US]; 29400 Lakeland Boulevard, Wickliffe, OH 44092 (US). PUDELSKI, John [US/US]; 29400 Lakeland Boulevard, Wickliffe, OH 44092 (US). COVITCH, Michael J. [US/US]; 29400 Lakeland Boulevard, Wickliffe, OH 44092 (US). FRIEND, Christopher [GB/GB]; P.O. Box 88, Belper Derbyshire DE56 1QN (GB).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
29 December 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 2005/087821 A3

(54) Title: DISPERSANT VISCOSITY MODIFIERS BASED ON DIENE-CONTAINING POLYMERS

(57) **Abstract:** A composition of the reaction product of (a) an isobutylene-diene copolymer having thereon groups containing carboxylic acid functionality or reactive equivalent thereof, derived from an &agr;, &bgr;-unsaturated carboxylic compound; and (b) an amine component comprising at least one aromatic amine containing at least one N-H group capable of condensing with said carboxylic acid functionality, is a useful dispersant viscosity modifier.